RAYMOND WEBSTER

International Pacific Halibut Commission,
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EDUCATION

North Carolina State University, Raleigh, NC

PhD in Statistics, December 2005

- Thesis Topic: Spatial Modeling of Detection and Abundance Data from Count Surveys of Animal Populations.
- Advisor: Ken Pollock
- Courses: Advanced Inference, Bayesian Modeling, Biomathematical Modeling, Applied Spatial Modeling, Measurement Error Models, Statistical Computing, Measure Theory.

University of Otago, Dunedin, New Zealand

MSc (with Distinction) by thesis in Statistics, December 1993

- Topic: Skewness-corrected Confidence Intervals for Stratified Random Sampling.
- Advisor: David Fletcher

BSc (with first class Honours) in Statistics, May 1992

RECENT EMPLOYMENT

International Pacific Halibut Commission, Seattle, WA, October 2006 - present
Biometrician

Develop and undertake research projects of importance to the goals of the IPHC.

Statistical modelling of data from the ongoing PIT tag-recovery study, and presentation of results to industry.

Review current IPHC port sampling and setline survey protocols.

Provide statistical support to IPHC staff.

Member of NMFS Independent Review Panel on for-hire fisheries surveys.

North Carolina State University, Raleigh, NC, February 2006 - September 2006
Postdoctoral Research Fellow, Department of Zoology

Spatial Bayesian hierarchical modeling of bird populations.

Modeling the effects of identification errors on animal density estimation.

North Carolina State University, Raleigh, NC, August 2002 - December 2005
Research Assistant, Department of Statistics

Prepared a monitoring protocol for the detection of rare coho salmon in the streams of Northern California.

Developed spatial Bayesian hierarchical models for the analysis of data from count surveys of bird

populations.

Landcare Research, Palmerston North and Lincoln, New Zealand, January 1997 - June 2002
Biometrician

Responsible for maintaining a high quality of statistical input in all Landcare work through:

- The design of experiments and research studies.
- Data analysis, from the routine to using sophisticated, recent techniques.
- The development and presentation of statistical software courses to Landcare staff throughout the country.
- Providing general biometrical consulting to science staff.
- As senior Biometrician from Feb 1998, assisting other biometrical staff and undertaking administration of biometrical work.

SELECTED PUBLICATIONS

Yoshizaki, J., Pollock, K. H., Brownie, C., and **Webster, R. A.** (2009), Modeling misidentification errors in capturerecapture studies using photographic identification of evolving marks. *Ecology*, 90, 3–9.

Webster, R. A., Pollock, K. H., and Simons, T. R. (2008), Bayesian spatial modeling of data from bird surveys. *Journal of Agricultural, Biological and Environmental Statistics*, 13, 121–139.

Webster, R. A., Pollock, K. H., Ghosh, S. K. and Hankin, D. G. (2008), Bayesian spatial modeling of data from unit-count surveys of fish in streams. *Transactions of the American Fisheries Society*, 137, 438–453.

Forsyth, D. M., Link, W. A., **Webster, R.**, Nugent, G. and Warburton, B. (2005), Nonlinearity and seasonal bias in an index of brushtail possum abundance. *Journal of Wildlife Management*, 69, 976–981.

Barton, J., Gianotti, A. F., Morin, L. and **Webster, R. A.** (2003), Exploring the host range of Fusarium tumidum, a candidate bioherbicide for gorse and broom, *Australasian Plant Pathology*, 32, 203–211.

Schipper, L. A., Clarkson, B. R., Vojvodic-Vulcovic, M. and **Webster, R.** (2002), Restoring cut-over restiad peat bogs: A factorial experiment of nutrients, seed and cultivation, *Ecological Engineering*, 19, 29–40.

Alley, J. C., Berben, P. H., Dugdale, J. S., Fitzgerald, B. M., Knightbridge, P. I., Meads, M. J. and **Webster, R. A.** (2001), Responses of litter-dwelling arthropods and house mice to beech seeding in the Orongorongo Valley, New Zealand. *Journal of the Royal Society of New Zealand*, 31, 425-452.

Fletcher, D. and **Webster, R.** (1996), Skewness-adjusted confidence intervals in stratified biological surveys. *Journal of Agricultural, Biological and Environmental Statistics*, 1, 120-130.

CONFERENCES AND WORKSHOPS

Bayesian Spatial Modeling of Coastal Fisheries Survey Data. International Biometric Conference, Florianópolis, Brazil. December 2010. Ray Webster.

Bayesian Spatial Modeling of Data from Bird Surveys (invited). International Biometric Conference, Florianópolis, Brazil. December 2010. Ray Webster, Ken Pollock and Ted Simons.

Conflicting results from a large multi-stratum PIT tag study and the Pacific Halibut stock assessment.

American Fisheries Society Conference, Ottawa, Canada. August 2008. Ray Webster.

Removal Sampling with Migration (poster). International Biometric Conference, Dublin, Ireland. July 2008. Ray Webster and Bill Clark.

Bayesian Spatial Modeling of Data from Bird Surveys. Joint Statistical Meetings, Seattle, WA, USA. August 2006. Ray Webster, Ken Pollock and Ted Simons.

Modeling Observer Effects on Animal Density and Detection for Combined Distance and Capture-Recapture Data (poster). International Biometric Conference, Montreal, Canada. July 2006. Ray Webster and Ken Pollock.

Presence/absence monitoring of juvenile coho salmon in streams. Workshop For Developing a Coastal Salmonid Monitoring Plan, Santa Cruz, CA, USA. March 2004. Ray Webster and Ken Pollock.

PROFESSIONAL SOCIETIES

International Biometrics Society (WNAR).
American Statistical Association.